

Appl. No. 10/035,093
Response dated March 17, 2004
Reply to Office Action of November 17, 2003

REMARKS/ARGUMENTS

Claims 1-36 are presented. Claims 1-2 and 7-36 are presented for the Examiner's consideration. Claims 1-2 and 7-30 are drawn to an elastic laminate material while claims 31-36 are to process for forming elastic laminate material. No new claims have been added. Claims 3-6 have been previously canceled. Claims 1 and 31 have been previously amended.

Pursuant to 37 C.F.R. § 1.111, reconsideration of the present application in view of the foregoing amendments and the following remarks is respectfully requested.

Applicants thank the Examiner for consideration of Applicants' amendments and remarks mailed September 08, 2003, and for withdrawing the previous 35 U.S.C. § 102 rejections.

By way of Paragraph 3 of the Office Action mailed November 17, 2003, the Examiner rejected claims 1-2 and 7-33 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over U.S. Patent Number 5,851,935 to Srinivasan et al. (hereinafter "Srinivasan et al.") or U.S. Patent Number 5,431,991 to Quantrille et al. (hereinafter "Quantrille et al.") in view of U.S. Patent Number 6,096,668 to Abuto et al. (hereinafter "Abuto et al."). This rejection is respectfully **traversed** to the extent that it may apply to the currently presented claims.

The invention as presently claimed in claim 1 comprises an elastic laminate material which comprises a thermoplastic elastic material and a non-bonded staple fiber web layer bonded to the thermoplastic elastic material, wherein the thermoplastic elastic material comprises elastic polyolefin or a blend of elastic polyolefin and styrenic block copolymer.

Srinivasan et al. discloses a nonwoven fibrous web/elastic film laminate which is laminated in a thermal spot bonding process which melts holes or apertures through the elastic film (see, e.g., Srinivasan et al. at claim 1, at col. 3 lines 28-35, and col. 4 lines 62-67). Quantrille et al. discloses a nonwoven/elastic laminate wherein the elastic is a stranded netting having non-extensible machine direction strands and elastic cross-machine direction strands and the nonwoven fibrous web or webs are hydroentangled into the netting material. Abuto et al. teaches a film laminate

Appl. No. 10/035,093
Response dated March 17, 2004
Reply to Office Action of November 17, 2003

comprising an extensible barrier film, an extensible nonwoven outer layer, and an elastic intermediate nonwoven web of fibers, and, as the Examiner has noted, Abuto et al. does teach that polyolefin elastomers may be used.

The Examiner has stated that it would have been obvious to one skilled in the art to make the elastic films of Srinivasan et al. or Quantrille et al. of polyolefin elastomer "in order to substitute a different type of thermoplastic elastomer" because of the teachings of Abuto et al. However, the Applicants believe the combination of Srinivasan et al. or Quantrille et al. with Abuto et al. is not proper.

The reasoning expressed in the rejection, "in order to substitute a different type of thermoplastic elastomer" does not show where the cited art suggests the desirability of such substitution, except to say that Abuto et al. teaches polyolefin elastomers for elastic films joined to nonwoven webs. As stated in M.P.E.P. § 2143.01, the "mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)." Here, no desirability for making such a substitution is shown; rather, the teaching of Abuto et al. appears to have been taken in isolation, rather than in the context of the complex laminate structure taught therein, which is a laminate comprising an extensible barrier film, an extensible nonwoven outer layer, and an elastic intermediate nonwoven web of fibers. Applicants further point out that in Abuto et al. the extensible nonwoven outer layer is not laminated to the film layer as is done in Srinivasan et al., because in Abuto et al. the elastic intermediate nonwoven web of fibers is interposed between the extensible nonwoven outer layer and the extensible barrier film. Regarding Quantrille et al., Applicants point out that Quantrille et al. involves a part-elastic stranded netting (having elastic cross-machine direction strands), rather than elastic film, and there is no teaching in Abuto et al. or in Quantrille et al. that an elastic film may be substituted for the elastic cross-machine direction strands, nor any teaching that the polyolefin elastomers may be used for the elastic cross-machine direction strands.

In addition, Applicants note the Examiner also stated that Abuto et al. teaches that polyolefin elastomers are good for elastic films joined to nonwoven webs. However, as described by Srinivasan et al., the process for bonding the laminate must be a thermal spot bonding process

Appl. No. 10/035,093
Response dated March 17, 2004
Reply to Office Action of November 17, 2003

wherein the bonding temperature exceeds both the melting temperature of the fibers and the thermoplastic film, and wherein the melting temperature of the fibers must exceed the melting temperature of the elastic film, in order to produce desired result in Srinivasan et al. of having apertures melted through the elastic film but not through the fibrous materials (please see Col. 3, lines 29-37). As stated in M.P.E.P. § 2143.02, references may be combined as long as there is a reasonable expectation of success. However, because of the particularized requirements for the characteristics of the components of the various layers of the laminate taught in Srinivasan et al., there would be no reasonable expectation of achieving success when making such a substitution, and instead one skilled in the art might actually have a reasonable apprehension of failure.

Applicants also point out again that Srinivasan et al. is, at best, not clear with respect to whether use of bonded or non-bonded fibrous webs is appropriate. The only clear statement on this point is found at Col. 2 lines 51-56, "The present invention is a nonwoven-elastomeric film-nonwoven (A-B-A) laminate... The nonwoven webs are made from staple thermoplastic fibers which have been carded and thermal spot bonded." (emphasis added). The Examiner has stated that that statement must be read together with Col. 6, lines 30-40, which states that the carded webs are formed and laid on the elastic film and that the sandwich of elastic film between carded webs is fed into the calendar nip. However, Applicants submit that even reading the two passages together, one skilled in the art would not simply disregard the clear teaching that the nonwoven webs are staple fiber webs which have been carded and thermal spot bonded, and instead select for use non-bonded web materials, especially since the second passage cited by the Examiner does not state explicitly whether the webs are bonded or not.

Also by way of Paragraph 3, and with apparent reference to claims 12-18 (dependent claims which recite bonding agent), the Examiner stated that Quantrille et al. teaches bonding agents and directs attention to Col. 6, lines 40-50. However, what is disclosed at Col. 6, lines 40-50 of Quantrille et al. are adherence promoting additives which are designed to help one part of the stranded netting (the non-extensible machine direction strands) adhere to the second part of the stranded netting (elastic cross-machine direction strands) so that the dissimilar sub-components of the net may apparently stay together. This is not the same as the bonding agents taught in the instant application, whereby bonding agents may be utilized to facilitate bonding of the elastic layer to the nonwoven web layer.

Appl. No. 10/035,093
Response dated March 17, 2004
Reply to Office Action of November 17, 2003

For the reasons stated, Applicants respectfully submit that one skilled in the art would not have been motivated to substitute the polyolefin elastomer of Abuto et al. for the elastic film layer of Srinivasan et al. or the partially elastic stranded netting of Quantrille et al., and Applicants therefore respectfully submit that the rejection of claims 1-2 and 7-33 under 35 U.S.C. §103 over Srinivasan et al. or Quantrille et al. in view of Abuto et al. should be withdrawn.

By way of Paragraph 4 of the Office Action mailed November 17, 2003, the Examiner rejected claims 34-36 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art at the time the invention was made and thus unpatentable over Quantrille et al. in view of U.S. Patent Number 6,027,483 to Chappell et al. (hereinafter "Chappell et al."). This rejection is respectfully traversed to the extent that it may apply to the currently presented claims.

The invention as claimed in claim 34 is a process for forming elastic laminate material comprising the steps of forming a first non-bonded staple fiber web, extruding a thermoplastic elastic material, and then forming the laminate by bonding the fiber web layer to the thermoplastic elastic material while the elastic material remains in a partially molten state.

As discussed above, Quantrille et al. discloses a nonwoven/elastic laminate wherein the elastic is a stranded netting having non-extensible machine direction strands and elastic cross-machine direction strands and the nonwoven fibrous web or webs are hydroentangled into the netting material. Chappell et al. discloses an absorbent article having an absorbent core and a web material joined to the absorbent core, where the web material exhibits elastic-like behavior. As the Examiner has pointed out, Chappell et al. states that the elastic-like material disclosed therein may be laminated to other materials such as by "extrusion laminating whereby a polymeric film is cast directly onto a substrate, and while still in a partially molten state, bonds to one side of the substrate" (this is found at Col. 21, lines 27-29).

The Examiner stated that because Chappell et al. teaches extrusion bonding as known, it would have been obvious to one skilled in the art to have used extrusion bonding to laminate the webs and film of Quantrille et al. "in order to provide an alternate well known method of bonding". First, Applicants point out that Quantrille et al. does not laminate webs and elastic films but rather webs and part-elastic stranded netting. In addition, no desirability for substituting the extrusion bonding mentioned in Chappell et al. for the hydroentangling or other subsequent bonding methods of

Appl. No. 10/035,093
Response dated March 17, 2004
Reply to Office Action of November 17, 2003

Quantrille et al. is shown. As stated in M.P.E.P. § 2143.01, the "mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)."

Applicants also point out that the web material of concern in Chappell et al., and which Chappell et al. states may be laminated to other materials by extrusion bonding, is not an elastic film material. The Chappell et al. materials are materials which, "exhibit an "elastic-like" behavior in the direction of applied elongation without the use of added traditional elastic" (please see Col. 2, lines 25-28; emphasis added.) As stated in Chappell et al., "traditional elastics are costly and require a certain degree of manipulation and handling during assembly." (please see Col. 1, lines 65-67, for example). This is important for two reasons. First, because the materials disclosed in Chappell et al. are not elastic materials, and because the reference in fact speaks against the use of elastic materials, one skilled in the art would not seek to substitute the teachings of Chappell et al. for the process as described in Quantrille et al. and thus there is no motivation to combine these two references. Second, Chappell et al. does not teach that extrusion bonding is appropriate for part-elastic nettings such as is required for Quantrille et al., but rather that extrusion bonding is appropriate for laminating other materials to the elastic-like (but not elastic) materials taught in Chappell et al.

For the reasons stated, Applicants respectfully submit that one skilled in the art would not have been motivated to substitute extrusion bonding lamination of the elastic-like materials of Chappell et al. for hydroentangling the nonwoven web to the part-elastic stranded netting as taught in Quantrille et al., and Applicants therefore respectfully submit that the rejection of claims 34-36 under 35 U.S.C. §103 over Quantrille et al. in view of Chappell et al. should be withdrawn.

Although claims certain of the dependent claims were not specifically treated individually by the Examiner in the Office Action mailed November 17, 2003, the Examiner did reject all of claims 1-2 and 7-33 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art over Srinivasan et al. or Quantrille et al. in view of Abuto et al., and rejected all of claims 34-36 under 35 U.S.C. § 103(a) as allegedly being obvious to one of ordinary skill in the art over Quantrille et al. in view of Chappell et al. Claims 7-30, 32, 33, 35 and 36 depend either directly or indirectly from

Appl. No. 10/035,093
Response dated March 17, 2004
Reply to Office Action of November 17, 2003

independent claims 1, 31 and 34 and recite the present invention in varying scope. Applicants have herein discussed the cited references in relation to independent claims 1, 31 and 34. Claims 7-30, 32, 33, 35 and 36 are similarly distinguishable not only because of the patentability of the independent claims but also because of the combination of the subject matter of each of the dependent claims with their independent claim which makes each claim further distinguishable.

For the reasons stated above, it is respectfully submitted that all of the presently presented claims are in form for allowance.

Please charge any prosecutorial fees which are due to Kimberly-Clark Worldwide, Inc. deposit account number 11-0875.

The undersigned may be reached at: 770-587-8908.

Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I, Robert A. Ambrose, hereby certify that on March 17, 2004, this document is being faxed to the United States Patent and Trademark Office, central facsimile machine at (703) 872-9306.

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